

53. (Amended) A capacitor comprising:

a first capacitor electrode;  
a dielectric layer formed by oxidizing a metal layer overlying the [from said] first capacitor electrode; and  
a second capacitor electrode.

98. (Amended) A capacitor formed by a process comprising:

forming an insulative layer overlying a [silicon dioxide] substrate;  
masking the insulative layer to define a region in which to fabricate the capacitor;  
removing the insulative layer in an unmasked region to expose a portion of the substrate;  
depositing a polysilicon layer overlying the insulative layer and the substrate and contacting the substrate;

removing portions of the polysilicon layer to expose an upper surface of the insulative layer;

depositing a metal layer to overly the polysilicon layer, the metal layer being formed from at least one metal selected from the group consisting of titanium, copper, gold, tungsten, and nickel alloyed with at least one additional metal selected from the group consisting of strontium, barium, and lead;

contacting the metal layer with an electrolytic solution;  
applying an electrical potential to the electrolytic solution and the metal layer;  
oxidizing at least a portion of the metal layer to form a metal oxide to function as a dielectric layer; and  
forming an electrically conductive layer overlying the metal oxide.

104. (Amended) A capacitor, comprising:

a first conductive plate formed from at least one metal selected from the group consisting of titanium, copper, gold, tungsten, and nickel, alloyed with at least one additional metal selected from the group consisting of strontium, barium, and lead;

a second conductive plate formed from a material selected from the group consisting of polysilicon and metal; and

a dielectric interposed between the first and second conductive plates, wherein the dielectric is an oxide of a metal layer overlying [material of] the first conductive plate.

105. (Amended) A memory system, comprising:

a monolithic memory device comprising a capacitor, wherein the capacitor comprises  
a first conductive plate formed from at least one metal selected from the group consisting of titanium, copper, gold, tungsten, and nickel, alloyed with at least one additional metal selected from the group consisting of strontium, barium, and lead,

a second conductive plate formed from a material selected from the group consisting of polysilicon and metal, and

a dielectric interposed between the first and second conductive plates, wherein the dielectric is an oxide of a metal layer overlying [material of] the first conductive plate; and

a processor configured to access the monolithic memory device.

106. (Amended) A capacitor comprising:

a first capacitor electrode formed from at least one metal selected from the group consisting of titanium, copper, gold, tungsten, and nickel, alloyed with at least one additional metal selected from the group consisting of strontium, barium, and lead;

a dielectric layer formed by oxidizing a metal layer overlying [from] the first capacitor electrode; and

a second capacitor electrode formed from a material selected from the group consisting of polysilicon and metal.

Please add the following new claims.

107. (New) The capacitor of claim 19, wherein the metal layer comprises titanium.

108. (New) The capacitor of claim 19, further comprising at least one of a diffusion barrier layer and an oxidation resistant layer interposed between the first conductive plate and the metal layer.

109. (New) The memory system of claim 20, wherein the metal layer comprises titanium.

110. (New) The memory system of claim 20, further comprising at least one of a diffusion barrier layer and an oxidation resistant layer interposed between the first conductive plate and the metal layer.

111. (New) The capacitor of claim 53, wherein the metal layer comprises titanium.

112. (New) The capacitor of claim 53, further comprising at least one of a diffusion barrier layer and an oxidation resistant layer interposed between the first capacitor electrode and the metal layer.

113. (New) The capacitor of claim 104, wherein the metal layer comprises titanium.

114. (New) The capacitor of claim 104, further comprising at least one of a diffusion barrier layer and an oxidation resistant layer interposed between the first conductive plate and the metal layer.

115. (New) The memory system of claim 105, wherein the metal layer comprises titanium.

116. (New) The memory system of claim 105, further comprising at least one of a diffusion barrier layer and an oxidation resistant layer interposed between the first conductive plate and the metal layer.

117. (New) The capacitor of claim 106, wherein the metal layer comprises titanium.

118. (New) The capacitor of claim 106, further comprising at least one of a diffusion barrier layer and an oxidation resistant layer interposed between the first capacitor electrode and the metal layer.